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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,552	01/29/2004	Mathew K. S. Lum	38190/267204	5082
826	7590	12/01/2004	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000				SMITH, RICHARD A
		ART UNIT		PAPER NUMBER
				2859

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/767,552	LUM ET AL. <i>AN</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	R. Alexander Smith	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7,9-14,16,17,19-21 and 23-37 is/are rejected.
- 7) Claim(s) 8,15,18 and 22 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 January 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20040129.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim is objected to as being non-limiting since the limitations of this claim appear to already be disclosed in the last three lines of claim 10.
  
2. Claim 37 is objected to under 35 CFR §1.75(b) since claim 37 is essentially a duplicate claim of claim 34.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,805,311 to Fuchs.

Fuchs discloses an apparatus comprising first (Mb20) and second (Mb21 and Mb22) template members cooperably defining an aperture (at Mf20, Mf21 and Mf22) defining a cross-sectional reference shape of the tubular member, the first and second template members being configured to receive the tubular member in the aperture, at least one of the first and second members (Mb20) being adjustable such that the aperture is configured to be adjusted between open and closed positions; and a measurement device (Mt) configured to detect the relative position of the first and second template members, thereby measuring the relative adjustment of at least one of the members between the open and closed positions, a measurement of the measurement device being indicative of the cross-sectional size of the tubular member, a hinge connection (at Fg2) between the first and second template members, at least one of the template members thereby being rotatably adjustable relative to the other of the template members, the aperture is generally circular, the measurement device is configured to determine a diameter of the tubular member, an urging device configured to apply a predetermined force to the members to urge the members toward the closed position (FH and Pf, column 3, lines 4-16).

5. Claims 1-4, 6, 7, 9-11, 13, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,543,725 to Golinelli et al.

Golinelli et al. discloses an apparatus having the limitations of claims 1-4, 6, 7, 9-11, 13, 14 and 16 when the hinge is elements 6-8, the gap is on the other side and measured by the magnetic core on stem 32 attached to 29 of the first template member 5 and its movement within

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transducer windings 52 attached to 28 of the second template member 4, the urging device being 18, the gap adjustment limits being set by 24, 25, 19, 20 and 23.

With respect to said first and second template members cooperably defining an aperture defining a cross-sectional reference shape of the tubular member: In a broad sense, the defining of a cross-sectional reference shape as claimed is met by the measurement of the tubular member's shape once the tubular member is inserted within the aperture.

6. Claims 1-4, 6, 7, 9-11, 13, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,335,422 to Ferguson

Ferguson discloses an apparatus having the limitations of claims 1-4, 6, 7, 9-11, 13, 14 and 16 when the hinge is element 24, the gap is 78 on the other side and measured by an LVDT, the urging device being 72.

With respect to said first and second template members cooperably defining an aperture defining a cross-sectional reference shape of the tubular member: In a broad sense, the defining of a cross-sectional reference shape as claimed is met by the measurement of the tubular member's shape once the tubular member is inserted within the aperture.

7. Claims 26, 27, 31-34 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,240,206 to Baresh et al.

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Baresh et al. discloses an apparatus having the limitations of claims 26, 27 and 31 when the hinge is elements at 110 of figure 6, the plurality of measurement devices are 106a and 106b, the output characteristic of the contact force is as shown in figure 1, and the urging device is 112.

With respect to said first and second template members cooperably defining an aperture defining a cross-sectional reference shape of the tubular member: In a broad sense, the defining of a cross-sectional reference shape as claimed is met by the measurement of the tubular member's shape once the tubular member is inserted within the aperture.

With respect to claims 32-34 and 37: the method steps will be met during the normal operation of the apparatus disclosed by Baresh et al.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs in view of U.S. 6,457,338 to Frenken.

Fuchs teaches all that is claimed as discussed in the above rejections of claims 1, 2, 4, 7 and 9 except for the measurement device is an electronic device.

Frenken discloses an apparatus wherein the measurement device can be a mechanical, electronic or electrical sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the measurement device, taught by Fuchs, an electronic device, as taught by Frenken, since Frenken teaches that the various sensors can be used in the alternative and since the output of an electronic measurement device can be easily processed by a computer or display unit.

10. Claims 17-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golinelli et al.

Golinelli et al. teaches all that is claimed as discussed in the above rejections of claims 1-4, 6, 7, 9-11, 13, 14 and 16 except for the method steps of claims 17-21, 23 and 25

With respect to claims 17-21, 23 and 25: the method steps will be met during the normal operation of the apparatus disclosed by Golinelli et al.

11. Claims 17, 19, 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs.

Fuchs teaches all that is claimed as discussed in the above rejections of claims 1, 2, 4, 7 and 9 except for the method steps of claims 17, 19, 21 and 25.

With respect to claims 17, 19, 21 and 25: the method steps will be met during the normal operation of the apparatus disclosed by Fuchs.

12. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs, as applied to claims 17, 19, 21 and 25 above and further in view of U.S. 6,457,338 to Frenken.

Fuchs teaches all that is claimed as discussed in the above rejections of claims 17, 19, 21 and 25 except for the measurement device is an electronic device.

Frenken discloses an apparatus wherein the measurement device can be a mechanical, electronic or electrical sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the measurement device, taught by Fuchs, an electronic device, as taught by Frenken, since Frenken teaches that the various sensors can be used in the alternative and since the output of an electronic measurement device can be easily processed by a computer or display unit.

With respect to the method steps of claim 24: the method steps will be met during the normal operation of the apparatus disclosed by Fuchs.

13. Claims 17, 19-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golinelli et al.

Golinelli et al. teaches all that is claimed as discussed in the above rejections of claims except for the method steps of claims 17, 19-21, 23 and 25

With respect to claims 17-21, 23 and 25: the method steps will be met during the normal operation of the apparatus disclosed by Golinelli et al.

14. Claims 5, 12, 17, 19-21 and 23-25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Golinelli et al. in view of U.S. 6,457,338 to Frenken.

Golinelli et al. teaches all that is claimed as discussed in the above rejections of claims 1-4, 6, 7, 9-11, 13, 14 and 16 except for the measurement device is an electronic device and the method steps of claims 17, 19-21 and 23-25

Frenken discloses an apparatus wherein the measurement device can be a mechanical, electronic or electrical sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the measurement device, taught by Golinelli et al., an electronic device, as taught by Frenken, since Frenken teaches that the various sensors can be used in the alternative and since the output of an electronic measurement device can be easily processed by a computer or display unit.

With respect to claims 17, 19-21 and 23-25: the method steps will be met during the normal operation of the apparatus disclosed by Golinelli et al. as modified by Frenken.

15. Claims 17, 19-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson.

Ferguson teaches all that is claimed as discussed in the above rejections of claims 1-4, 6, 7, 9-11, 13, 14 and 16 except for the method steps of claims 17, 19-21, 23 and 25

With respect to claims 17, 19-21, 23 and 25: the method steps will be met during the normal operation of the apparatus disclosed by Ferguson.

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16. Claims 28, 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baresh et al. in view of U.S. 4,807,479 to Sako et al.

Baresh et al. teaches all that is claimed as discussed in the above rejections of claims 26, 27, 31-34 and 37 except for the aperture being generally circular and each measurement device being configured to measure at least one of a force, pressure and stress that is representative of the stiffness of the tubular member.

Sako discloses a device having a generally circular aperture and a sensor configured to measure at least one of a force, pressure and stress in a tubular member. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify and enhance the apparatus and the method, taught by Baresh et al., to include a circular aperture and to include sensors configured to measure at least one of a force, pressure and stress in a tubular member, as taught by Sako, in order to protect the user should the tubular member split or burst upon pressure, and to increase the versatility of the device to measure more than dimension.

With respect to the intended use of the apparatus, i.e., representative of the stiffness of the tubular member in claim 29: this intended use has not been given any patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

17. Claims 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baresh et al. in view of J.P. 362228302A to Keyakida.

Baresh et al. teaches all that is claimed as discussed in the above rejections of claims 26, 27, 31-34 and 37 except for the apparatus being configured to determine a variation of the thickness.

Keyakida discloses an apparatus for measuring tubes wherein the sensor box (8) can employ an outer diameter sensor, mill scale sensor, and a wall thickness sensor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the sensor and method, taught by Baresh et al., by replacing the sensors with thickness sensors, as suggested by Keyakida, or by including thickness sensors, as taught by Keyakida, in order to check the tube for cracks or flaws.

***Allowable Subject Matter***

18. Claims 8, 15, 18 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

19. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

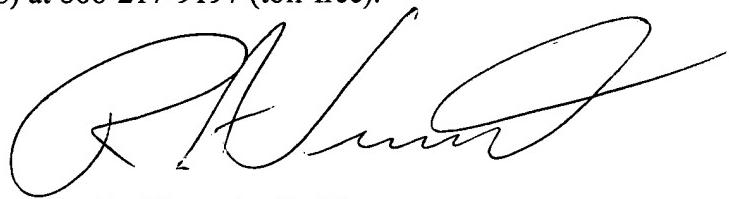
***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus and methods.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Alexander Smith  
Patent Examiner  
Technology Center 2800

RAS  
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